

Are siblings of children who had unintentional injuries at increased risk of injury?

Johnston BD, Grossman DC, Connell FA, et al. High-risk periods for childhood injury among siblings. *Pediatrics* 2000;105:562–568.

DESIGN AND SETTING

Cohort study in King County, Washington.

PARTICIPANTS

A total of 41,242 children aged 0 to 15 years (50% boys, 49% white) were continuously enrolled in Medicaid between October 1992 and September 1993.

ASSESSMENT OF RISK FACTORS

Children were considered exposed to a recent injury for 90 days after 1 or more of their siblings were admitted to hospital or treated in the emergency department (ED) for an injury. Children were considered unexposed if no injuries to siblings were recorded or if more than 90 days had elapsed since an injury.

MAIN OUTCOME MEASURES

Whether a child had received ED treatment or admission for an unintentional injury was identified from Medicaid claims records.

MAIN RESULTS

Of the 5,003 incidents involving a medically treated injury that occurred in 4,162 children, 4,921 events required treatment in the ED (4,084 children) and 82 events required admission to hospital (78 children). Children who had a sibling who had been injured in the previous 90 days had an increased risk of injury requiring treatment in the ED (hazard ratio, 1.53, 95% confidence interval [CI] 1.34–1.74, adjusted for age, sex, race, sibling group size, and sibling group ED use for noninjury diagnoses), but not for injury requiring hospital admission (adjusted hazard ratio, 0.46, CI 0.13–1.64). The risk of injury after a medically treated injury in a sibling was highest in the second week after the event (adjusted hazard ratio, 2.24, [CI 1.66 to 3.01]*); risk was raised >50% above baseline for 30 days after the event and declined toward the baseline risk by 90 days. Data analyzed separately by age group showed that exposure to an injury in a sibling was protective in children younger than 12 months of age; for all other age groups, exposure was associated with an increased risk, and the magnitude of this risk increased with age.

CONCLUSIONS

Siblings of children treated in the ED for an unintentional injury had an increased risk of injury for 90 days after the event. Risk of injury was highest 4 to 10 days after the event, and risk was higher among older children.

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None declared

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